CLAIMS

1. A process for preparing detergent particles, comprising the steps of:

(I): mixing a base particle for supporting a surfactant ((a) component); and 15 to 100 parts by weight of a surfactant composition ((b) component), based on 100 parts by weight of said (a) component, the base particle having an average particle size of from 150 to 500 μm, a bulk density of 400 g/L or more, and a particle strength of 50 kg/cm^2 or more, under mixing conditions such that said (a) component does not substantially undergo breakdown, to give a mixture; and

(II):mixing the mixture obtained in step (I) with 5 to 100 parts by weight of fine powder, based on 100 parts by weight of the mixture, with substantially maintaining the shape of (a) component containing (b) component, to give detergent particles, wherein the detergent particles have a degree of particle growth of 1.5 or less, and a bulk density of 500 g/L or more.

2. The process according to claim 1, wherein in said step (I), a mixing operation is carried out by using a

mixer comprising agitation impellers of which mixing impellers have a shape of a paddle-type, wherein the agitation impellers have a Froude number of from 0.5 to 8, provided where the mixer further comprises disintegration impellers, the mixing operation is carried out under mixing conditions so as not to substantially rotate the disintegration impellers.

3. The process according to claim 1, wherein in said step (I), a mixing operation is carried out by using a mixer comprising agitation impellers of which mixing impellers have a shape of a screw-type, under mixing conditions wherein the agitation impellers have a Froude number of from 0.1 to 4.

4. The process according to claim 1, wherein in said step (I), a mixing operation is carried out by using a mixer comprising agitation impellers of which mixing impellers have a shape of a ribbon-type, under mixing conditions wherein the agitation impellers have a Froude number of from 0.05 to 4.

5. The process according to any one of claims 1 to 4, wherein in said step (II), a mixing operation is carried out by using a mixer comprising agitation impellers and

disintegration impellers, under mixing conditions wherein the agitation impellers have a Froude number of 2 or more, and wherein the disintegration impellers have a Froude number of 200 or more.

6. The process according to ~~any one of claims 1 to 5~~ Claim 1, wherein the mixture obtainable in step (I) has any one of forms in Funicular II region, Capillary region, and Slurry region.

7. The process according to ~~any one of claims 1 to 6~~ Claim 1, wherein said (b) component is a surfactant composition comprising a nonionic surfactant and an immobilization agent for the surfactant, provided that the immobilization agent is 1 to 100 parts by weight, based on 100 parts by weight of the nonionic surfactant.

8. The process according to ~~any one of claims 1 to 7~~ Claim 1, wherein in step (I), mixing is carried out under conditions such that a maximum temperature of a mixture of said (a) component and said (b) component is a pour point of said (b) component or higher during a period between an initiation of mixing and a termination of mixing.

9. The process according to ~~any one of claims 1 to 8~~ Claim 1,

wherein said (a) component has a surfactant-supporting ability of 20 mL/100 g or more.

10. The process according to ~~any one of claims 1 to 9~~ claim 1, wherein said (b) component further comprises 20 to 200 parts by weight of an anionic surfactant having sulfate group or sulfo group, based on 100 parts by weight of the nonionic surfactant.

11. The process according to ~~any one of claims 1 to 10~~ claim 1, wherein in step (I), mixing is initiated after raising the temperature of each of (a) component and (b) component to a temperature of a pour point of said (b) component or higher.

12. The process according to ~~any one of claims 1 to 11~~ claim 1, wherein in step (I), mixing is carried out, with maintaining a temperature of a mixture of said (a) component and said (b) component at a pour point of said (b) component or higher during a period between an initiation of mixing and a termination of mixing.

13. The process according to ~~any one of claims 1 to 12~~ claim 1, wherein the detergent particles have a dissolution rate of 90% or more, under conditions where the resulting

detergent particles are supplied in water at 5°C; stirred for 60 seconds under the stirring conditions that 1 g of the detergent particles are supplied to a one-liter beaker having an inner diameter of 105 mm which is charged with one-liter of hard water having 71.2 mg $CaCO_3$/L, wherein a molar ratio of Ca/Mg is 7/3, and stirred with a stirring bar of 35 mm in length and 8 mm in diameter at a rotational speed of 800 rpm; and filtered with a standard sieve having a sieve-opening of 74 μm as defined by JIS Z 8801, wherein the dissolution rate of the detergent particles is calculated by the equation:

$$\text{Dissolution Rate (\%)} = [1 - (T/S)] \times 100$$

wherein S is a weight (g) of the detergent particles supplied; and T is a dry weight (g) of insoluble remnants of the detergent particles remaining on the sieve when an aqueous solution prepared under the above stirring conditions is filtered with the sieve, wherein drying conditions for the insoluble remnants are keeping at a temperature of 105°C for 1 hour, and then in a desiccator with a silica gel at 25°C for 30 minutes.